

REMARKS/ARGUMENTS

I. Introduction:

Claims 1-22 are pending in this application. Claims 1, 10, 14, and 19 have been amended. Support for the amended claims can be found in the specification. No new matter has been added.

II. Claim Rejections Under 35 U.S.C. 112:

Claims 1-22 stand rejected under 35 U.S.C. 112. Claims, 1, 10, 14, and 19 have been amended as requested by the Examiner. More specifically, the term "application" has been replaced with "network application" and the phrase "directory server attribute name" has been replaced with "attribute name used by one of the directory servers".

III. Claim Rejections Under 35 U.S.C. 102:

Claims 19, 21, and 22 stand rejected under 35 U.S.C. 102(e) as being anticipated by U.S. Patent No. 6,484,177 (Byrne et al.).

Claim 19 is directed to a system for integrating a network application with different directory servers. The system generally includes a table mapping attributes utilized by the network application with attribute names used by directory servers available to the application, means for identifying in the table the directory server attribute name corresponding to an attribute requested by the application, and means for searching the directory server for the requested attribute with the identified directory server attribute name.

Byrne et al. disclose a method for using non-local data within a LDAP. The method is used to maintain authentication information in a distributed network of servers using LDAP directories. When a request to authenticate a user with a

distinguished name is received, the cached directory entries and the local access control data are searched for the distinguished name and, once the distinguished name is located, the user is authenticated with each server in the non-local access server list.

Byrne et al. do not disclose a system for integrating a network application with different directory servers. Applicants' invention, as set forth in the claims, is particularly advantageous in that the memory based attribute mapping table allows applications to be integrated with various directory services implementations without modifying application code. Thus reducing the need for customer support and for maintaining different directory server specific versions of application code. With conventional directory servers, such as disclosed in Byrne et al., application schema used for one directory server often has to be modified to work with a different directory server and schema often has to be modified in order to replicate or synchronize LDAP data on one server to another server of a different vendor. Therefore, every time an application has to operate with a new directory server, the code has to be modified. This problem is not addressed by Byrne et al.

Furthermore, Byrne et al. do not disclose a table mapping attributes utilized by the network application with attribute names used by the directory servers available to the application. Byrne et al. builds within a server a local cache of group information used for authentication purposes. The group information includes, for example, an access group for authentication which may include associated attributes such as group of managers. Queries can specify that all attributes be returned or only a specified subset of attributes. LDAP is used by Byrne et al. to query servers using an LDAP search request. This is a typical use of LDAP, which allows applications and users to access information from different directories. However, Byrne et al. do not address the issue of directory servers having different application schema.

Byrne et al. also do not disclose means for identifying a directory server attribute name corresponding to an attribute requested by an application or means for

searching the directory server for the requested attribute with the identified directory server attribute name. In rejecting these aspects of the claim, the Examiner refers to col. 2, lines 5-10 and 62-67 of the Byrne et al. patent. These portions of the patent simply describe using a request to authenticate a user with a distinguished name in an LDAP server.

Accordingly, claim 19 is submitted as not anticipated by Byrne et al. Claims 21 and 22, depending directly from claim 19, are submitted as patentable for the same reasons as claim 19.

IV. Claim Rejections Under 35 U.S.C. 103:

Claims 1-18 and 20 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Byrne et al. in view of U.S. Patent No. 6,484,177 (Van Huben).

The Van Huben et al. patent is directed to data management interoperability methods for heterogeneous directory structures. The system uses a layered architecture centered around a plurality of managers conforming to a PFVL paradigm data classification method. In an example for an e-business conducting an on-line transaction, LDAP is used to store and manage web pages, images, and Java scripts. Product and customer order information is stored in a traditional database. A user can search information about a product with command translators accessing the appropriate repository. By applying the PFVL paradigm to data stored in a directory structure, the data residing outside of the directory service can also be classified using the same PFVL paradigm. An HTML page can provide static product information and query the dynamic information, such as available inventory from the database.

Claim 14 is directed to a system for integrating a network application with different directory servers. The system generally includes a table mapping attributes utilized by the network application with attribute names used by the directory servers, memory for storing the table, and a processor that identifies in the table the directory

server attribute name corresponding to an attribute requested by the application and sends a request containing the identified directory server attribute name to the corresponding directory server.

As previously discussed, Byrne et al. do not disclose a system for integrating a network application with different directory servers. The Examiner notes that Byrne et al. do not disclose sending a request containing the identified directory server attribute name to the corresponding directory server. Van Huben et al. also do not show or suggest sending a request containing the directory server attribute name corresponding to an attribute requested by an application to a corresponding directory server. The system of Van Huben et al. manages objects in a directory service storage to direct a request to a directory service server or one or more data management systems. The system is simply directing a request for information to an appropriate database based on the classification in a directory structure.

Moreover, Applicants respectfully submit that there is no suggestion to combine the teachings of Van Huben et al. with Byrne et al. to produce the claimed invention. Obviousness cannot be established by combining the teachings of the prior art to produce the claimed invention, absent some teaching, suggestion, or incentive supporting the combination. Byrne et al. uses LDAP for queries to non-local servers for maintaining authentication information in a distributed network of servers. Whereas Van Huben et al. are concerned with using a directory service such as LDAP to interact with a centralized data management system for accessing data storage managed by a virtual control repository.

Accordingly, claim 14 is submitted as nonobvious over Byrne et al. and Van Huben et al.

Claims 15-18, depending directly from claim 14, are submitted as patentable for the same reasons as claim 14.

Claims 1 and 10 are directed to a method and computer program product, respectively, for integrating a network application with different directory servers and are submitted as patentable for the reasons discussed above with respect to claims 14 and 19.

Claims 2-9, depending from claim 1, and claims 11-13, depending from claim 10, are submitted as patentable for the same reasons as claims 1 and 10.

V. Conclusion:

For the foregoing reasons, Applicants believe that all of the pending claims are in condition for allowance and should be passed to issue. If the Examiner feels that a telephone conference would in any way expedite the prosecution of the application, please do not hesitate to call the undersigned at (408) 446-8695.

Respectfully submitted,



Cindy S. Kaplan
Reg. No. 40,043

RITTER, LANG & KAPLAN LLP
12930 Saratoga Ave., Suite D1
Saratoga, CA 95070
Tel: 408-446-8690
Fax: 408-446-8691
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